

REQUEST FOR PROPOSALS

Characterization of Shallow Subsurface Sediments of the Salton Sea

Issued by:

Salton Sea Authority

Responses Due: October 18, 2002

STUDY SITE

The Salton Sea is the largest body of water in California, encompassing 376 square miles with a maximum depth of 51 feet. It is a hypersaline lake located in a closed desert basin east of Los Angeles and San Diego. The Sea was initially formed in 1905-1907 by flooding on the Colorado River, which breached an irrigation control structure allowing virtually the full flow of the river into the Salton Basin. The Sea is sustained primarily due to irrigation return flows from the Imperial, Coachella, and Mexicali Valleys. Rainfall and small volumes of municipal effluent and storm water runoff help supplement the agricultural drainage.

The aquatic ecosystem of the Salton Sea is extremely eutrophic and supports highly productive fish populations. Moreover, the Sea and its adjacent wetlands are important components of the Pacific Flyway, providing habitat and seasonal refuge to millions of birds of hundreds of species. For example, the Sea supports 45% of the entire population of threatened Yuma Clapper Rail, 80% of the American White Pelican, and 90% of the continental population of the Eared Grebe. Historically, the Salton Sea has offered many recreational opportunities including fishing, bird watching, boating, water skiing, camping, hiking, and photography. However, these resources are being threatened by changes occurring at the Sea, specifically rising salinity, increasing eutrophication, and proposed water transfers.

Inflows to the Sea have remained relatively constant for many years but the escalating demand for water to support population growth in Southern California threatens the Salton Sea as a viable ecosystem. Recent proposed plans for transfer of water between the Imperial Irrigation District and the San Diego County Water Authority could lead to a significant reduction in inflows into the Sea and a drop in water level. Other actions, such as wastewater reclamation and salinity control measures, could result in further reductions of inflows. The proposed water transfer would cause the level to the Sea to drop 15 feet, exposing up to 70 square miles of currently submerged lakebed. The bottom sediments, once exposed, may become wind-borne dust, one the major causes of air pollution. The receding lake level could cause a significant degradation of air quality in the Imperial and Coachella valleys, areas that already fail to meet federal air quality standards. Episodes of wind blown dust occur now in areas around the Sea and more could be expected if the water level recedes. Characteristics of soil and sediment surfaces are major determinants of how susceptible the material will be to wind erosion. Conditions on the shoreline are variable, and it is quite certain some areas of exposed lakebed sediments will have the potential for generating dust under some conditions.

PROJECT BACKGROUND

Acting under authority of the Secretary, the Department of the Interior, in concert with the State of California and other stakeholder agencies, has initiated a National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) process and scientific activities to guide those processes in the determination of an appropriate remediation strategy for the Salton Sea. The Secretary designated the U.S. Bureau of Reclamation (USBR) as the lead agency for NEPA purposes. The Salton Sea Authority (SSA) is the lead agency for CEQA. The SSA is a joint powers agency chartered by the State of California and comprises the counties of Imperial and

Riverside, the Imperial Irrigation District, and the Coachella Valley Water District. An independent Salton Sea Science Office serves the Salton Sea Restoration Project by providing focused scientific input to meet the needs of the USBR and SSA in developing management actions leading to the restoration of the Salton Sea.

SCOPE OF WORK

ISSUE BACKGROUND

Proposed water transfers and other management actions may reduce inflows to the Salton Sea, resulting in lowered water levels and increased exposed lakebed. An issue of major concern with the implementation of these actions is the increased degradation of air quality in the Imperial and Coachella valleys. Very fine sediments, once exposed, may become wind blown dust, a major contributor to air pollution. The characteristics of sediments that will be exposed by receding water level are a major determinant of how susceptible the material will be to wind erosion. Soil and sediment conditions on lakebed that will be exposed must be defined and mapped in order to predict potential changes in air quality. Few studies are available on Salton Sea lakebed conditions. Current knowledge of sediment condition is based on a small number of samples, collected throughout the Sea.

GOAL

The goal of the proposed work is to characterize and map Salton Sea lakebed sediments from shoreline to a depth of 15 feet below existing lake level (currently 227 feet below sea level). Specifically, this requires 1) a classification of types of bottom sediments existing in the Sea; 2) mapping the distribution of sediment types; and 3) an estimation of the extent of each sediment type. The resulting data must be of quality that it can be used for developing a predictive model for determining if the air quality will worsen as a result of receding water level and the degree to which this will occur. **ALL WORK CONDUCTED UNDER THIS AWARD MUST BE COMPLETED, AND ALL INVOICES RECEIVED NO LATER THAN 30 SEPTEMBER 2003**

FUNDING

All responses to this RFP should frame the proposed work within the anticipated maximum award of \$200,000. While there is no guarantee or offer of additional funding, we encourage respondents to provide written documentation describing project enhancements at an award amount of \$300,000 and \$400,000. However, unless notified otherwise, all proposals will be evaluated on work proposed for a maximum award of \$200,000.

PRODUCTS

1. A classification system for Salton Sea bottom sediments located within the specified depth within the Sea including particle size, nature and composition of the material, amount of organic material present, and other characteristics of importance for defining this material (e.g. per cent clay, per cent sand)

2. Contour maps revealing the geographic distribution of the various sediment types exposed if the lake level recedes 15 feet below its existing water level.
3. An estimation of extent of each bottom sediment type that will be exposed if the lake recedes 5, 10, or 15 feet below its existing water level.

Classification and mapping of Salton Sea bottom sediments within the area of potential exposure is critical for preservation and restoration of the ecosystem and requires a close working relationship between the Contractor, Salton Sea Authority, the Science Office, Bureau of Reclamation, and other parties working on the Sea. Several levels of products are envisioned:

1. Preliminary Evaluations: Contractor will work closely with the Science Office, and at the end of the first quarter, provide a briefing of the technology being employed and findings to date.
2. Consultations: The contractor may periodically be called upon to participate in Science Office and Restoration Project management meetings in which air quality or other aspects of the Sea are the area of focus. Preliminary information being obtained from the ongoing investigation is a product contributing to those discussions.
3. Reports: Quarterly reports summarizing accomplishments and documenting problems and issues, including recommendations for adjustments in the activities being undertaken, are expected as interim products. A final report also is a required product. To avoid duplication of efforts, that report may cite formal products already developed such as scientific manuscripts accepted for publication. In addition, data generated by these investigations are to be deposited in the Salton Sea Data Program.
4. Technical Publications: Scientific publications in the peer-reviewed literature and other formal documentation of findings covering the full scope of the investigation are expected.

ASSISTANCE PROVIDED BY THE SALTON SEA SCIENCE OFFICE

The Science Office will provide access to the Salton Sea Data Base and linkages with other investigators participating in Salton Sea Restoration Project scientific activities.

SUBMISSION OF PROPOSALS

The required proposal format is provided as Attachment A to the RFP. Three paper copies of each proposal and electronic version on 3.25" IBM-formatted diskette (WordPerfect 6.1 or

earlier or Microsoft Word for Windows 6.0) should be submitted by mail no later than October 18, 2002 to:

Dr. Douglas Barnum, Science Coordinator
Salton Sea Science Office
78401 Highway 111, Suite R
La Quinta, CA 92253
Email: Doug_Barnum@usgs.gov

Written questions about this RFP will be accepted and addressed. A record of the questions and responses will be posted on the Salton Sea page of the U.S. Bureau of Reclamation's Lower Colorado River Region website:

[Http://www.lc.usbr.gov](http://www.lc.usbr.gov)

CONTRACT OBLIGATIONS

Receipt of a funding award will obligate the contractor to the following:

- Adherence to established standards: The Science Office and the co-lead management agencies are committed to high quality science. As key inputs to the decision-making process, environmental data must be accurate and reliable. Therefore, each proposal is expected to contain a Quality Assurance statement briefly describing how the proposed approach will produce valid and high quality evaluations and how any limitations to the use of these data will be identified. All funded proposals will be required to produce an acceptable Quality Assurance Project Plan (QAPP). Additional guidance in preparation of the QA statement as well as the complete QAPP may be obtained from the QA coordinator:

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or from EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations, EPA QA/R-5, October 1997 which is available on the internet at:

<http://www.epa.gov/quality1/qs-docs/g4-final.pdf>

- Initiation of studies within 60 days of the contract award:
Evaluations need to be initiated in a timely manner to maximize the amount of information that is available as soon as possible because of on-going needs for management decisions to be made. Therefore, contract awards obligate the investigators to initiate substantial efforts as soon as practical after receipt of a contract, but within 60 days.

- Submission of proposals is acknowledgement of a willingness to participate in “real-time” data and information sharing. This interchange will occur among Restoration Project investigators and between investigators and the Science Office and Restoration Project Management. Funded projects that do not comply with the spirit of this collaboration effort will be terminated.
- ALL WORK CONDUCTED UNDER THIS AWARD MUST BE COMPLETED, AND ALL INVOICES RECEIVED NO LATER THAN 30 SEPTEMBER 2003

INSURANCE REQUIREMENTS:

- General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
- Automobile Liability: \$1,000,000 per accident for bodily injury and property damage. The Authority, its directors, officers, employees, agents and volunteers shall be covered as additional insured with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Contractor or for which the Contractor is responsible; and the insurance coverage shall be primary insurance as respects the funding source/agency.
- Workers’ Compensation and Employer’s Liability: Workers’ compensation limits as required by the Labor Code of the State of California. Employers Liability limits of \$1,000,000 per accident for bodily injury or disease. The insurer shall agree to waive all rights of subrogation against the Authority, its directors, officers, employees, agents and volunteers for losses paid under the terms of the insurance policy which arise from work performed by the contractor.
- Professional Liability: Consultant shall maintain, and require subcontractors to maintain, for a period of 5 years (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession. Such insurance shall be in an amount not less than one (1) million dollars per claim, and shall be endorsed to include contractual liability.

LEGAL REQUIREMENTS

- Equal Opportunity and Utilization of Small, Minority, and Women’s Business Enterprises in Procurement: Federal requirements regarding utilization of Small, Minority and Women’s Business enterprises in procurements related to this proposal will be required. Potential contractors need to briefly describe what their good faith efforts will be towards awarding a fair share of any sub-contracts and procurements to Small Business (SBE), Minority Business (MBE), and Women’s Business (WBE) Enterprises. All Salton Sea Authority contractors will be obligated to retain and report annually on all records documenting their

MBE/WBE efforts. A fair share objective imposes an obligation on the recipient or contractor to exercise good faith efforts. Good faith efforts by a recipient or prime contractor mean efforts to attract and utilize SBEs. MBEs and WBEs, primarily through outreach, recruitment and race/gender neutral activities.

Because of the high visibility of the Salton Sea Restoration Project and the need for real-time information as it is being obtained, contract performance will be closely monitored:

- Investigators funded under this RFP are required to provide any significant findings to the Science Office through the project officer or directly to the Science Office as such findings are identified throughout the course of their evaluation.
- The Science Office reserves the right to redistribute to other contractors, for use in their studies before final reports are prepared by contractors, preliminary information resulting from the evaluations. In doing so, the findings will remain confidential within the project and the ability of the investigators to publish their results in the scientific literature will be protected.

A draft final report will be submitted to the Science Office for peer review. Peer review comments are to be fully considered by the contractor and resolved with the Science Office. Comments received from peer review are to be responded to within 30 days following their receipt from the Science Office. The report will not be considered final until accepted by the Science Office and is not to be release as a public document until that time. Ten copies of the final report are to be provided to the Science Office within 30 days following notification of report acceptance. The contactor will also provide a summary presentation at an open Science Office meeting to afford the opportunity for dialogue involving this subject area.

EVALUATION AND SELECTION OF PROPOSALS AND CONTRACT AWARD

Proposals are limited to the scope of work identified. Proposals that attempt to extend the scope of work to ancillary areas of investigation will not be evaluated. Collaborative proposals involving a team of investigators are encouraged. However, that approach requires an integrated proposal with a lead principal investigator accountable for the project and product delivery, including the final report. Separate proposals for individual components of a collaborative proposal will not be evaluated. However, this does not preclude funding multiple investigators working as a team so long as the end-product is a single report addressing one or more specific goals as specified by this RFP.

The Science Office reserves the right to select the best segments from the various proposals received. If this occurs, those investigators selected may be asked to prepare a new integrated proposal incorporating the strategies of two or more proposals. Regardless of whether multiple proposals that address specific questions identified above or integrated proposals are selected, all investigators are required to participate in a single integrated effort relative to the salinity evaluations.

The evaluation process will take approximately 30 days. Contract awards will require an additional 30 to 45 days to provide funding to the successful submitters. The Science Office will perform an initial screening of each proposal for general compliance with this guidance and for relevance of the proposal. Relevance shall be evaluated using the following criteria:

- 1) Is the proposal responsive to the RFP, i.e., does it show understanding of the needs identified in the RFP?
- 2) Will the proposed approach provide information that significantly contributes to resolving the identified needs?
- 3) Is the general approach, including scope of coverage and duration of study consistent with the needs identified in the RFP?
- 4) Is an appropriate quality assurance statement included, i.e., is there a statement of intent to prepare an adequate QA program and plan to provide for adequate oversight of evaluations being developed in part by graduate students and/or investigators with limited work experience involving the subject matter?

The Science Office screening will be completed within 5 working days of the closing date for submission of proposals. Suitable proposals will then be reviewed in depth by at least two technical peer reviewers from outside the Science Office with no direct stake in investigations or remediation of the Salton Sea. Technical peer reviewers will score each proposal for:

- 1) Goals and objectives of the RFP relative to those of the RFP;
- 2) Demonstrated knowledge of the investigators relative to pertinent current literature;
- 3) Adequacy of the overall scientific approach;
- 4) Technical adequacy of methods, tools and data collection;
- 5) Anticipated outcomes and products;
- 6) Adequacy of work schedule, milestones, project duration, and level of effort;
- 7) Expertise of investigators in project area of study;
- 8) Quality/adequacy of facilities and equipment;
- 9) Adequacy of quality assurance statement.

Peer reviewers will be provided 30 days to complete their evaluations.

The Science Office will then consider the results of the technical peer reviews and develop recommendations to the co-lead management agencies based on:

- 1) Cost-- is the cost for the proposed evaluation reasonable relative to the products to be generated?
- 2) Multi-disciplinary approach--does the proposed study incorporate multi-disciplinary participation and approaches where such is warranted.
- 3) Reliability--does the proposal submitter have a proven history of timely project completion?
- 4) Timeliness--are the investigators able to substantially initiate studies within 60 days of the contract award.

Science Office evaluations will be completed within 5 working days of receipt of the peer reviews and recommendations forwarded to the co-lead management agencies. Funding decisions will be made in concert with those agencies. Funding will either be under the SSA, through federal or state appropriations/grants or by funding within the Science Office. The SSA will administer the contract in the first instances and the Science Office in the latter. The Science Office will oversee the technical performance of the contractor regardless of the funding source.

If this solicitation is amended then all terms and conditions that are not modified remain unchanged. The Science Office and the Authority reserve the right, at their sole discretion, to reject any or all proposal(s) received as a result of this request, to negotiate with any qualified source, and to cancel in part or in its entirety this request for proposal. The receipt of proposals shall not in any way obligate the Science Office, the Authority, nor the Bureau of Reclamation to enter into a contract of any kind. Neither the Science Office, the Authority nor the Bureau of Reclamation will be responsible in any manner for the costs associated or incurred with the preparation and submission of the proposals.

ATTACHMENT A: FORMAT FOR PROPOSALS

In general, proposals should be printed on 8.5 x 11 inch paper at 12-point font size with one inch margins. Clear, concise presentations of the case to conduct the proposed evaluations are sought. Unnecessarily elaborate proposals beyond those sufficient to present a complete and effective response to this RFP are not desired.

Proposers who include data which they do not want disclosed to the public must add the following statement to the title page:

“This proposal includes data that shall not be disclosed outside the reviewing government agencies and their agents and shall not be duplicated or used, in whole or in part, for any purpose other than to evaluate this proposal. If however, a contract is awarded to this proposer as a result of, or in connection with, the submission of these data, the government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting agreement. This restriction does not limit the Science office’s right to use information contained in these data if they are obtained from another source without restriction.”

Each page of the proposal which contains data the proposer wished to restrict must be marked with the following legend:

“Use or disclosure of data contained on this page is subject to the restriction on the title page of this proposal.”

Title Page: Descriptive title of proposed study plus name and affiliation of principal investigator(s) and all contact information including mailing address(es), voice and fax phone numbers, and email address(es).

Summary: Brief description of proposed study.

Objectives: Specific accomplishments to be realized.

Narrative: The narrative should fully develop the approach to be undertaken. Investigators should demonstrate a knowledge of the broader relevant published literature and clearly describe a technical approach that is scientifically sound. Sufficient detail should be included such that moderately informed scientific peers can readily visualize how the evaluation will be done. A quality assurance statement is required.

Milestones and Products: This presentation should be specific enough to identify what products and general information will be available in what time frames.

Staffing: A table showing the proposed staffing, principal duties of each staff member, and the time allocation of all scientific staff must be included. Resumes should be provided for the principal investigator and all co-investigators and should be condensed by focusing on

education, recent positions, relevant experience and accomplishments, and recent and relevant publications that pertain to expertise in carrying out the proposed evaluation.

Experience: A list of projects completed by the submitting entity and/or principal investigators which demonstrates the ability to complete projects on a timely basis.

Facilities: The proposal should contain a description of the relevant facilities that provide the support base for the investigators evaluations. The description should be sufficiently detailed to allow the technical peer reviewers to determine adequacy with respect to accomplishing the proposed objectives.

Budget: A comprehensive budget covering all proposed activities must be included. The budget must, at a minimum, include the following elements identified for each year of investigation for the entire duration of the study:

- 1) Personal – by staff member;
- 2) Travel – separate travel for site visits from travel for other purposes;
- 3) Equipment – purchases and rental;
- 4) Supplies – major items or categories;
- 5) Contract services – itemize by purpose and subcontractor;
- 6) Indirect costs including overhead – Note: overhead costs cannot exceed 26 percent for contracts issued by the Salton Sea Authority or the Salton Sea Science Office.
- 7) Other – substantial costs not included above.